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TECHNICAL ASSISTANCE TEAM FOR EMERGENCY RESPONSE REMOVAL AND PREVENTION
EPA CONTRACT 68-01-7367

Mr. Duane Heaton
Deputy Project Officer
Emergency Support Section, 5 HS-12
U.S. Environmental Protection Agency
230 South Dearborn Street
Chicago, Illinois 60604

September 27, 1990

TAT-05-G2-02153

Re: Lyle's Trucking, Belleville, Michigan
TDD# 5-8909-09

Dear Mr. Heaton:

On September 9, 1989, the U. S. Environmental Protection Agency (U.S. EPA) tasked the Technical Assistance Team (TAT) to conduct a site assessment and evaluate the threats to human health and environment at the Lyle's Trucking site in Belleville, Wayne County, Michigan (Figure 1). This letter report summarizes the site history, site investigation and analytical results of samples collected by the TAT.

Lyle's Trucking is located at 40195 Judd Road, at the southeast corner of the intersection of Judd Road and Carleton West Road, in Sumpter Township, Wayne County, Michigan (Figure 2). The site is located in a rural residential and commercial area. Access to the site is gained via a driveway that connects to Carleton West Road. Access to the site is not restricted.

The Lyle's Trucking site is the former location of the Hard Fill Landfill, which was also known as the Satterlee-Sumpter Township Landfill, and was licensed landfill for disposal of general refuse and commercial wastes. The landfill opened in 1964, three years prior to obtaining an Act 87 license from the Michigan Department of Natural Resources (MDNR) on June 28, 1967. The landfill was closed in 1971 by Sumpter Township officials when they discovered that the landfill was operating illegally. Reports alleged that landfill operators accepted hazardous wastes, however, the allegations were never substantiated.

Because of the alleged illegal disposal of hazardous wastes at the landfill, combined with the presence of sandy soils and perched water table, the landfill was suspected of being the source of historical surface and ground water contamination in the area. MDNR files indicate that ground water flow of the area is to the south-southeast. There are several residential wells located hydrogeologically downgradient from the landfill.

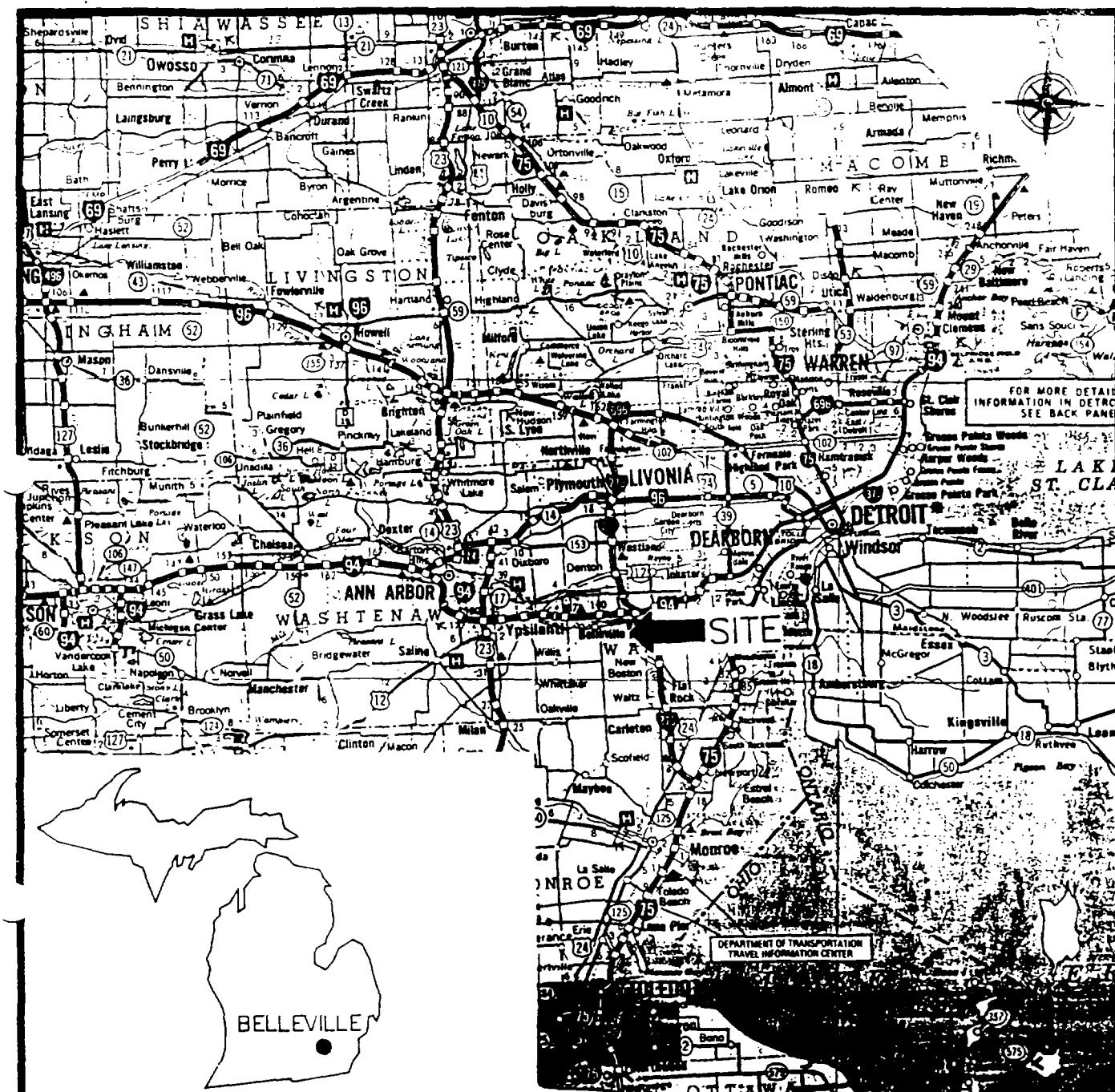
EPA Region 5 Records Ctr.



238413

Roy F. Weston, Inc.
MAJOR PROGRAMS DIVISION

In Association with ICF Technology, Inc., C.C. Johnson & Malhotra, P.C., Resource Applications, Inc.,
and R.E. Sarriera Associates



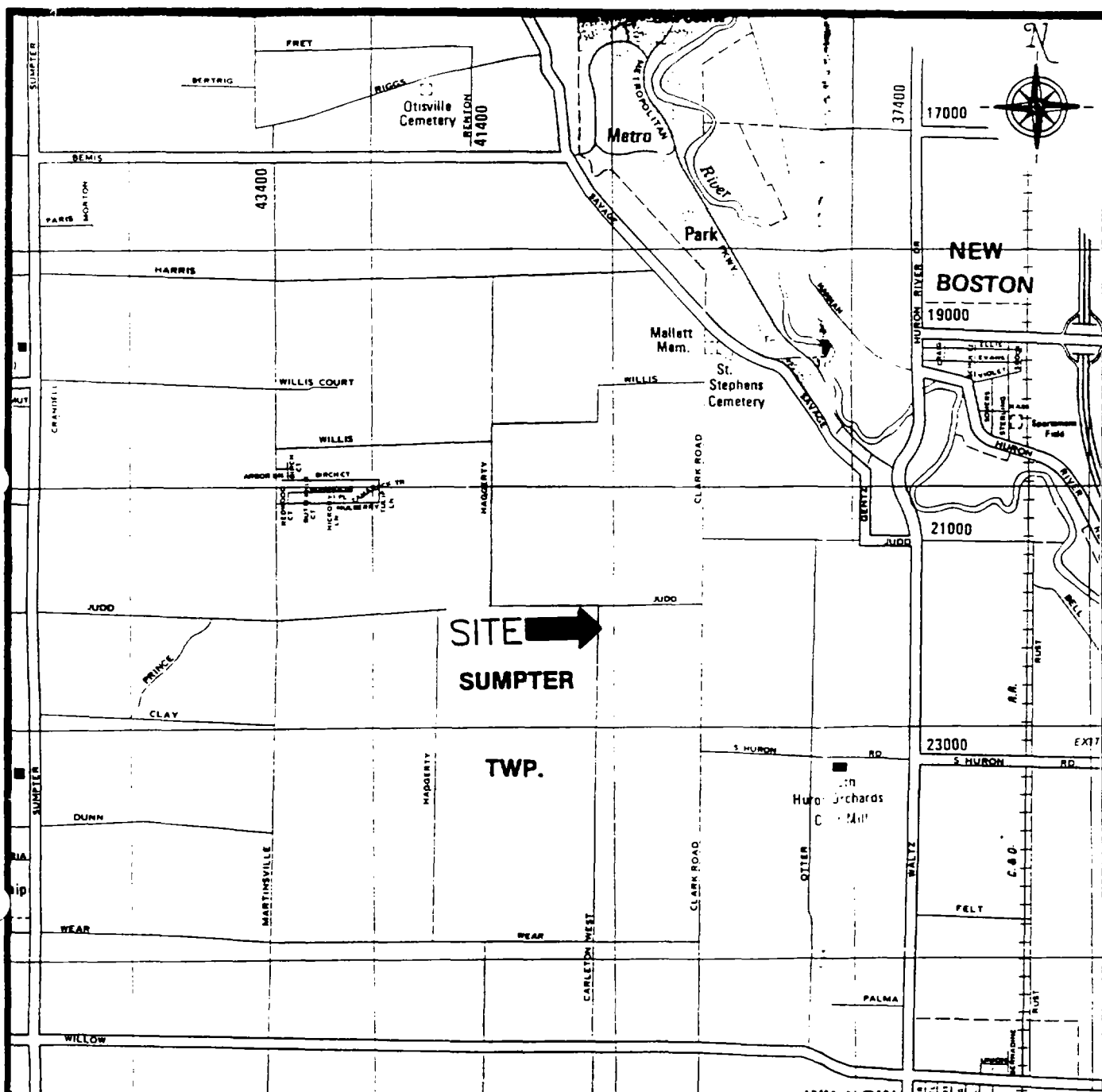
MICHIGAN

SOURCE: UNIVERSAL MAP ENTERPRISES

FIGURE 1
SITE LOCATION MAP
LYLE'S TRUCKING
BELLEVILLE, MICHIGAN
SCALE 1 IN = 14.5 MI

WESTON
MANAGERS DESIGNERS/CONSULTANTS

DRAWN BY MJD	DATE 09-20-90	PCS # 2397
APPROVED BY D. CAPONE	DATE 09-21-90	TDD # 5-8909-09



SOURCE: AMERICAN AUTOMOBILE ASSOCIATION

FIGURE 2
SITE LOCATION MAP
LYLE'S TRUCKING
BELLEVILLE, MICHIGAN
SCALE 1 INCH = 7 TENTHS OF A MILE



**MAJOR
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REGION V TECHNICAL ASSISTANCE TEAM

DRAWN BY MJD	DATE 04-16-90	PCS # 2397
APPROVED BY D. CAPONE	DATE 09-21-90	TDD # 5-8909-09

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September 27, 1990

According to MDNR files, Lyle Zilka of Lyle's Trucking Company, began using the landfill in 1975 as a storage area for 55-gallon drums containing liquid industrial wastes. Lyle's Trucking also used the site for a barrel crushing operation. Mr. Zilka claimed that only empty drums were accepted for crushing. After discovering that Lyle's Trucking was accepting drums containing liquids, paints, solvents, and oils, the MDNR ordered that a cement pad be constructed for the drum crushing operation. The MDNR also restricted Lyle's Trucking to a maximum of 2,000 drums on site at any one time. In 1979, 8,000 drums were discovered at the site, and the MDNR ordered Mr. Zilka to cease acceptance of wastes and to reduce the inventory of drums. Subsequently, the MDNR revoked Lyle's Trucking liquid waste haulers license under the Michigan Liquid Industrial Waste Act.

In August, 1979, Mr. Zilka and Environmental Waste Control (EWC) entered into a Consent Agreement with the MDNR to remove approximately 8,000 drums and contaminated surface soils from a four acre area of the site. Since the removal of these drums, additional drums have been periodically dumped at the site. The MDNR attempted to take enforcement actions against the potentially responsible parties (PRPs), however, their efforts were unsuccessful.

On August 11, 1989, the MDNR Environmental Response Division (ERD) contacted the U.S. EPA Emergency and Enforcement Response Branch (EERB) and requested assistance in evaluating the threats to human health and the environment posed by the Lyle's Trucking site. On September 9, 1989, the TAT was tasked by the U.S. EPA to conduct a site investigation and implement a sampling plan at the Lyle's Trucking site.

On September 15, 1989, TAT members George Cella, Mathew Sam, and Kerry Hanlon conducted a site investigation at the Lyle's Trucking site. A thorough survey of the site revealed the presence of approximately 70 drums. Many of the drums were staged in small groups which were scattered throughout the site (Figure 3). Several drums which were observed leaking paint-like materials were staged on a large concrete pad near the south end of the site. The TAT observed signs that children had been playing throughout the site, including a fort-like structure which had been constructed on the concrete pad next to some of the leaking drums. The TAT documented the presence of several tanks of various sizes, crushed drums, and abandoned automobiles at the site. The TAT also observed several areas of visibly stained soils and stressed vegetation across the eight acre site.

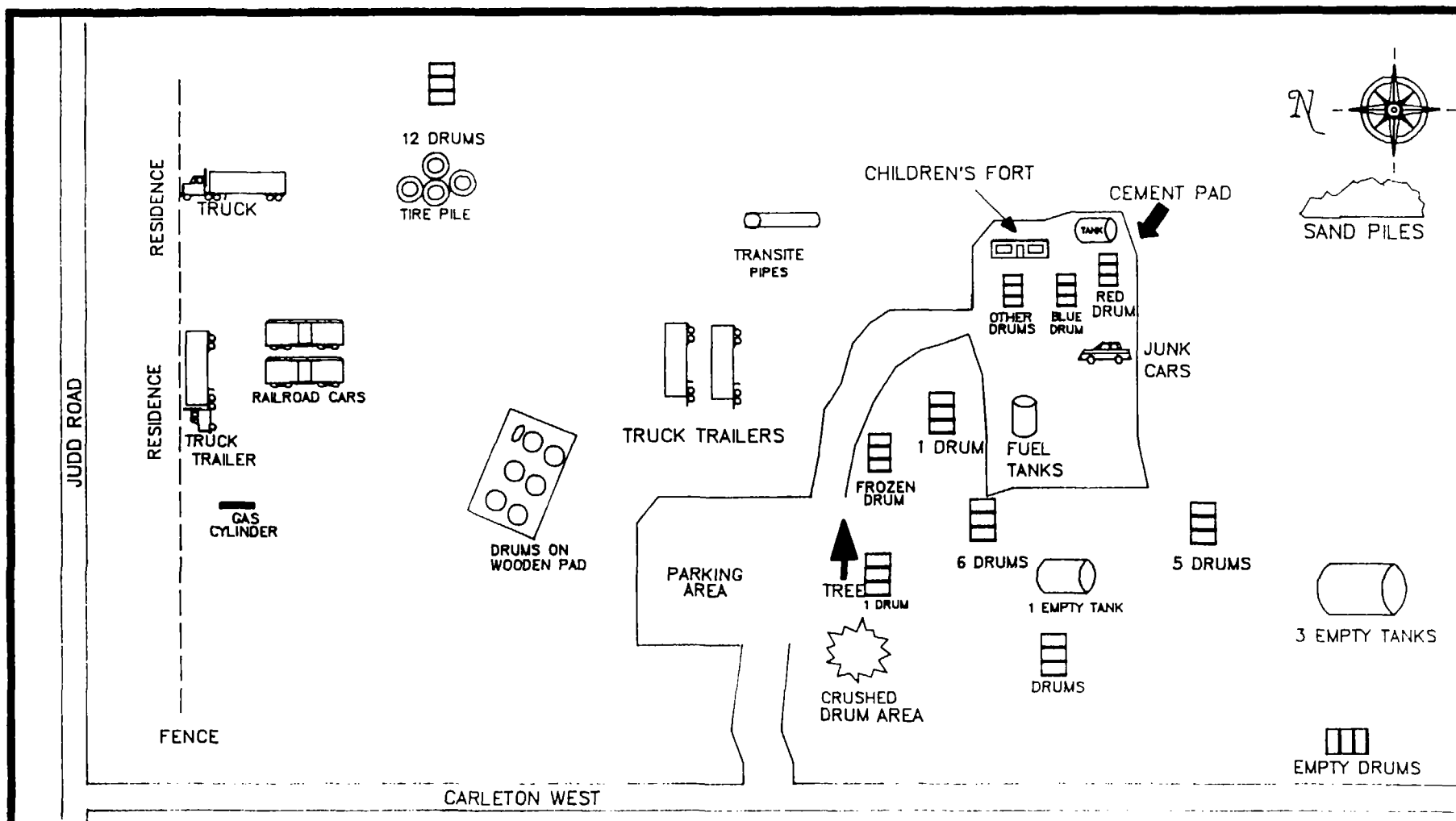


FIGURE 3
SITE MAP
LYLE'S TRUCKING
BELLEVILLE, MICHIGAN
NO SCALE



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REGION V TECHNICAL ASSISTANCE TEAM

DRAWN BY MJD	DATE 01-26-90	PCS # 2397
APPROVED BY D. CAPONE	DATE 09-21-90	TDD # 5-8909-09

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Mr. Duane Heaton

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September 27, 1990

The TAT conducted air monitoring using a combustible gas indicator (CGI), a radiation meter, and an organic vapor analyzer (OVA). No readings above background were detected with either the CGI or the radiation meter. The TAT documented OVA readings of up to 900 units above background in the headspace of a drum which was leaking a blue paint-like material. Readings of up to 200 units above background were observed while monitoring near a drum leaking a reddish/pink paint-like material. No readings above background were documented from any of the tanks or crushed drums.

On January 12, 1990, TAT members Cella, Katie Mooney, and Cheryl Kreindler met U.S. EPA On-Scene Coordinator (OSC) Jason El-Zien at the Lyle's Trucking site to collect drum and soil samples. The TAT developed a detailed log of the number of drums and their respective locations on site. Following a brief survey of the site, the TAT collected two soil samples (S93 and S94) and four drum samples (S96-S99). Sample locations are presented on Figure 4. The soil samples were collected from areas which appeared to have stressed vegetation. Two samples were collected from drums located on the wooden pad north of the parking area (S96 and S99). Samples were also collected from two drums staged on the cement pad that were observed leaking paint-like sludges (S99 and S98). A background soil sample (S95) was collected west of the site near Carleton West Road.

All samples were analyzed by Analytic and Biological Laboratories of Farmington Hills, Michigan, under TAT Analytical Services TDD# 5-9001-L06. The soil samples were analyzed for total metals and pH. Analytical results of the soil samples collected are summarized in Table 1. Analytical results of soil sample S93, collected from a crushed drum area, revealed 1,530 parts per million (ppm) lead. The typical median concentration of lead in natural soils is 29 ppm (source: Typical Concentrations of Metals in Soils, prepared by Region V TAT). The levels of other total metals in samples S93 and S94 were within the typically occurring ranges for natural soil.

The drum samples collected by the TAT were analyzed for volatile organic compounds (VOCs), Extraction Procedure Toxicity (EP Tox) metals, and flash point. Analytical results of the samples are displayed in Table 2. All four drum samples contained detectable levels of VOCs, such as toluene and xylene. Analysis of drum sample S98 showed 8.332 ppm ethylbenzene and 15.19 ppm xylene. Analytical results of drum sample S99 revealed 5,284 ppm cresols (cresyllic acid) and 1,309 ppm ethylbenzene.

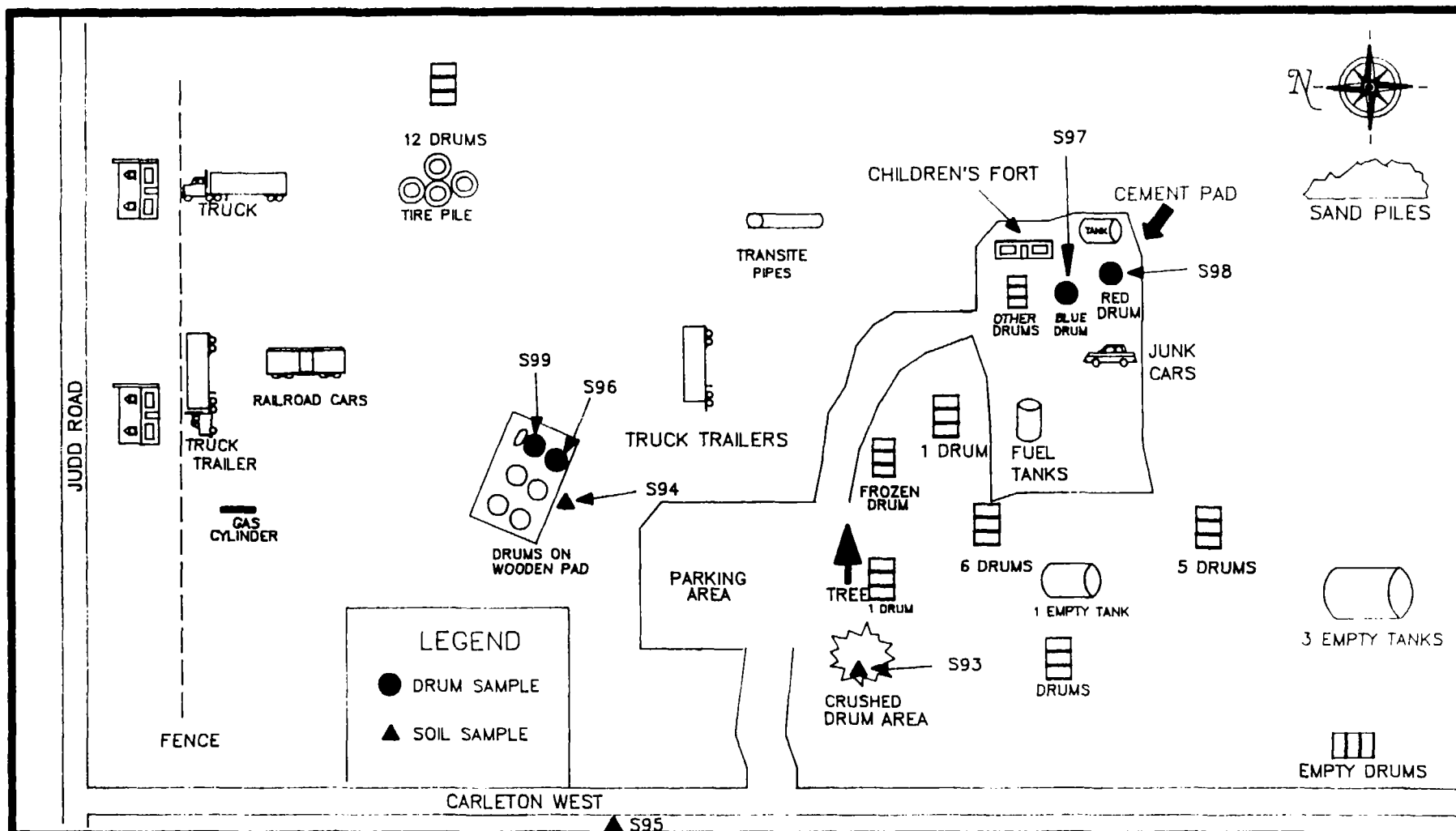


FIGURE 4
TAT SAMPLE LOCATION MAP - 01/12/90

LYLE'S TRUCKING
BELLEVILLE, MICHIGAN

NO SCALE

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MANAGERS DESIGNERS/CONSULTANTS

**MAJOR
PROGRAMS
DIVISION**

REGION V TECHNICAL ASSISTANCE TEAM

DRAWN BY
MJD

DATE
01-26-90

PCS #
2397

APPROVED BY
D. CAPONE

DATE
09-21-90

TDD #
5-8909-09

TABLE 1

ANALYTICAL RESULTS OF SOIL SAMPLES COLLECTED BY TAT^a
 TOTAL METALS, pH
 LYLE'S TRUCKING SITE
 BELLEVILLE, MICHIGAN
 January 12, 1990
 (All results in ppm unless otherwise indicated)

PARAMETERS	S-93 SOIL #1	S-94 SOIL #2	S-95 BACKGROUND
TOTAL METALS			
ALUMINUM	1,820	1,250	1,110
BARIUM	137	30.44	24.8
BERYLLIUM	0.114	0.072	0.202
CADMIUM	3.29	0.628	0.272
CALCIUM	28,100	8,050	41,500
CHROMIUM	40.5	11.36	4.16
COBALT	3.66	2.29	0.63
COPPER	27.6	7.24	6.16
IRON	5,120	2,510	402
LEAD	1,530	59.8	29.8
MAGNESIUM	3,080	2,520	10,100
MANGANESE	171	100	243
NICKEL	21	4.9	10.8
POTASSIUM	36.1	87.5	105
SODIUM	33.8	18.6	104
VANADIUM	3.23	2.66	0.411
ZINC	569	151	33.1
pH (UNITS)	7.83	6.56	8.1

a - Analysis performed by Analytic & Biological Laboratories,
 Farmington Hills, Michigan.

TABLE 2

ANALYTICAL RESULTS OF DRUM SAMPLES COLLECTED BY TAT^a
 VOCs, EP TOX METALS, FLASH POINT
 LYLE'S TRUCKING SITE
 BELLEVILLE, MICHIGAN
 January 12, 1990
 (All results in ppm unless otherwise indicated)

PARAMETERS	S-96 DRUM #1	S-97 DRUM #2	S-98 DRUM #3	S-99 DRUM #4
VOLATILE ORGANIC COMPOUNDS				
ACETONE	ND	ND	0.651	ND
CRESOLS (CRESYLIC ACID)	ND	ND	ND	5,284
ETHYLBENZENE	ND	ND	8.332	1,309
METHYL ISOBUTYL KETONE	ND	ND	1.112	ND
TOLUENE	0.361	ND	3.957	0.609
XYLENE	0.31	0.073	15.19	11.41
METALS EP TOX				
BARIUM	0.019	0.005	0.025	0.009
CADMIUM	ND	ND	0.104	ND
COPPER	0.013	0.006	0.039	ND
LEAD	173	0.145	9.49	ND
ZINC	0.119	0.101	6.33	22.98
FLASH POINT (°F)	>200°	90°	93°	>200°

a - Analysis performed by Analytic & Biological Laboratories,
 Farmington Hills, Michigan.

ND - Not detected at method detection limits.

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EP Tox results indicate that samples S96 and S98 are hazardous based on the Resource Conservation and Recovery Act (RCRA) characteristic of EP Tox (40 CFR Part 261.24) for lead (maximum allowable EP Tox level for lead in solid waste is 5 ppm). EP Tox analysis of the materials in samples S96 and S98 showed levels of 173 and 9.49 ppm lead, respectively. Samples S97 and S98, collected from drums, exhibited flash points of 90° and 93° fahrenheit (°F), respectively. Under RCRA, a waste exhibits the characteristic of ignitability if it has a flash point of less than 140° (40 CFR Part 261.21).

Paragraph (b) (2) of Section 300.415 of the National Contingency Plan (NCP) outlines factors which may be considered in determining the appropriateness of a removal action. Due to the documented presence of elevated levels of EP Tox metals in wastes, in addition to ignitable wastes contained within deteriorating and/or leaking drums, and the potential that additional drums not sampled contain hazardous substances, the following conditions exist at the Lyle's Trucking site:

- o actual or potential exposure to hazardous substances or contaminants by nearby populations, animals or food chains;
- o hazardous substances or pollutants or contaminants in drums, barrels, tanks or other bulk storage containers that may pose a threat of release;
- o weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or to be released; and
- o threat of fire or explosion.

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Should you have any questions, or require additional information, please feel free to contact us.

Very truly yours,

ROY F. WESTON, INC.

Sally Matz
FR Michael DeLong
Environmental Scientist

William R. Doyle
William R. Doyle
Technical Assistance Team
Leader, Region V

MD/jj
cc: J. El-Zien, OSC

ATTACHMENT A

SITE PHOTOGRAPHS



PHOTO NO: 1
 SITE: LYLE'S TRUCKING
 DATE/TIME: 09-14-89/PM
 DIRECTION: EAST
 PHOTOGRAPHER: K. HANLON *KH*
 CAMERA: OLYMPUS INFINITY 35 MM
 SUBJECT: VIEW OF THE SITE



PHOTO NO: 2
 SITE: LYLE'S TRUCKING
 DATE/TIME: 09-14-89/P
 DIRECTION: SOUTH
 PHOTOGRAPHER: K. HANLON *KH*
 CAMERA: OLYMPUS INFINITY 35 MM
 SUBJECT: VIEW OF THE SITE



PHOTO ID: 3
 SITE: LYLE'S TRUCKING
 DATE/TIME: 09-14-89 PM
 DIRECTION: WEST
 PHOTOGRAPHER: K. HANSON *KH*
 CAMERA: OLYMPUS INFINITY 35 MM
 SUBJECT: VIEW OF SITE AND DRIVEWAY CONT'D INTO SITE



PHOTO ID: 4
 SITE: LYLE'S TRUCKING
 DATE/TIME: 09-14-89 PM
 DIRECTION: SE
 PHOTOGRAPHER: K. HANSON *KH*
 CAMERA: OLYMPUS INFINITY 35 MM
 SUBJECT: DRUMS, CONTAINERS AND DEBRIS PRESENT ON SITE



PHOTO NO: 5
 SITE: LYLE'S TRUCKING
 DATE/TIME: 09-14-89 PM
 DIRECTION: WEST
 PHOTOGRAPHER: K. HANLON
 CAMERA: OLYMPUS INFINITY 35 MM
 SUBJECT: TANK PRESENT ON SITE



PHOTO NO: 6
 SITE: LYLE'S TRUCKING
 DATE/TIME: 09-14-89/PM
 DIRECTION: SW
 PHOTOGRAPHER: K. HANLON
 CAMERA: OLYMPUS INFINITY 35 MM
 SUBJECT: STAINED SOIL ON SITE



PHOTO NO: 7
 SITE: LYLE'S TRUCKING
 DATE/TIME: 09/14/89
 DIRECTION: EAST
 PHOTOGRAPHER: K. HANLON *KH*
 CAMERA: OLYMPUS INFINITY 35 MM
 SUBJECT: CRUSHED DRUMS PRESENT ON SITE



PHOTO NO: 8
 SITE: LYLE'S TRUCKING
 DATE/TIME: 09/14/89
 DIRECTION: WEST
 PHOTOGRAPHER: K. HANLON *KH*
 CAMERA: OLYMPUS INFINITY 35 MM
 SUBJECT: DRUMS PRESENT ON THE SITE



PHOTO NO: 9
 SITE: LYLE'S TRUCKING
 DATE/TIME: 09-14-89/PM
 DIRECTION: NW
 PHOTOGRAPHER: K. HANLOK *KH*
 CAMERA: OLYMPUS INFINITY 35 MM
 SUBJECT: DRUMS PRESENT ON THE NORTHERN PART OF THE SITE



PHOTO NO: 10
 SITE: LYLE'S TRUCKING
 DATE/TIME: 09-14-89/PM
 DIRECTION: NW
 PHOTOGRAPHER: K. HANLOK *KH*
 CAMERA: OLYMPUS INFINITY 35 MM
 SUBJECT: TAT AIR MONITORING DRUMS PRESENT ON THE SITE



PHOTO NO: 11
 SITE: CYLE'S TRUCKING
 DATE/TIME: 09-14-89/PM
 DIRECTION: NW
 PHOTOGRAPHER: K. HANLON *KH*
 CAMERA: OLYMPUS INFINITY 35 MM
 SUBJECT: VIEW OF THE DRUMS PRESENT ON THE NORTHERN PART OF THE
 SITE AND THE RESIDENCE ADJACENT TO THE SITE

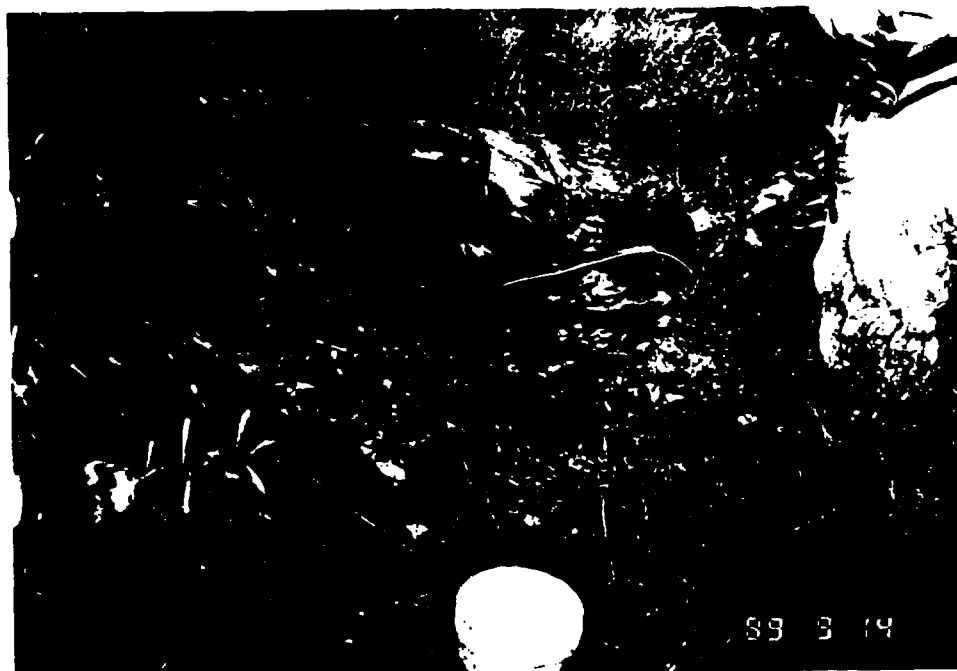


PHOTO NO: 12
 SITE: CYLE'S TRUCKING
 DATE/TIME: 09-14-89/PM
 DIRECTION: SE
 PHOTOGRAPHER: K. HANLON *KH*
 CAMERA: OLYMPUS INFINITY 35 MM
 SUBJECT: AIR MONITORING BEING CONDUCTED AROUND CRUSHED DRUMS



PHOTO NO: 13
 SITE: LYLE'S TRUCKING
 DATE/TIME: 09-14-89 PM
 DIRECTION: SOUTH
 PHOTOGRAPHER: K. HANLOM
 CAMERA: OLYMPUS INFINITY 35 MM
 SUBJECT: DRUM CONTAINING REDDISH BROWN MATERIAL, SHOWED 20-30 PPM
 ON THE OVA



PHOTO NO: 14
 SITE: LYLE'S TRUCKING
 DATE/TIME: 09-14-89 PM
 DIRECTION: SOUTH
 PHOTOGRAPHER: K. HANLOM
 CAMERA: OLYMPUS INFINITY 35 MM
 SUBJECT: DRUM CONTAINING BLUE MATERIAL, SHOWED 60-80 PPM ON THE
 OVA



PHOTO NO: 12
 SITE: LYLE TRUCKING
 DATE/TIME: 09-14-89/PM
 DIRECTION: SE
 PHOTOGRAPHER: K. HANLON *KH*
 CAMERA: OLYMPUS INFINITY 35 MM
 SUBJECT: VIEW OF JUNK CARS AND WRECKS FROM THE SITE

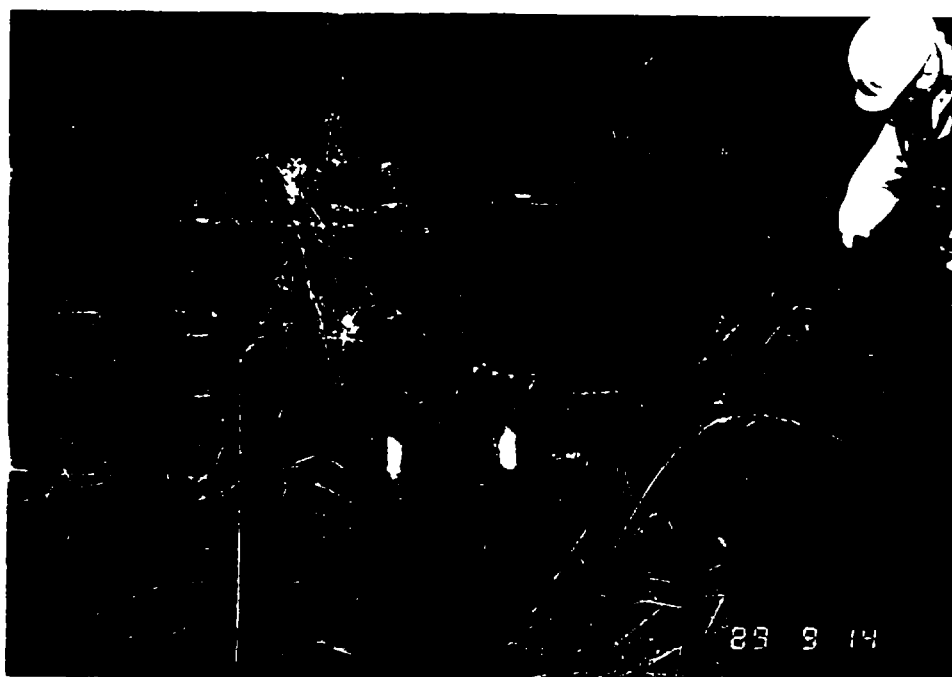


PHOTO NO: 13
 SITE: LYLE TRUCKING
 DATE/TIME: 09-14-89/PM
 DIRECTION: WEST
 PHOTOGRAPHER: K. HANLON *KH*
 CAMERA: OLYMPUS INFINITY 35 MM
 SUBJECT: AIR MONITORING BEING CONDUCTED ON SINGLE ISOLATED DRUM



PHOTO NO: 17
SITE: LYLE'S TRUCKING
DATE/TIME: 09-14-89/PM
DIRECTION: SE
PHOTOGRAPHER: K. HANLON *KH*
CAMERA: OLYMPUS INFINITY 35 MM
SUBJECT: DRUM CONTAINING YELLOW SLUDGE - EVIDENCE ON THE SITE.



PHOTO NO: 18
 SITE: LYLE'S TRUCKING
 DATE/TIME: 01-12-90/PM
 DIRECTION: NW
 PHOTOGRAPHER: C. KREINDLER ©
 CAMERA: OLYMPUS INFINITY 35 MM
 SUBJECT: TAT COLLECTING SOIL SAMPLE S2



PHOTO NO: 19
 SITE: LYLE'S TRUCKING
 DATE/TIME: 01-12-90/PM
 DIRECTION: NW
 PHOTOGRAPHER: C. KREINDLER ©
 CAMERA: OLYMPUS INFINITY 35 MM
 SUBJECT: TAT COLLECTING SOIL SAMPLE S2



PHOTO NO: 20
 SITE: LYLE'S TRUCKING
 DATE/TIME: 01-12-90/PM
 DIRECTION: SE
 PHOTOGRAPHER: C. KREINDLER
 CAMERA: OLYMPUS INFINITY 35 MM
 SUBJECT: TAT COLLECTING SOIL SAMPLE S1



PHOTO NO: 21
 SITE: LYLE'S TRUCKING
 DATE/TIME: 01-12-90/PM
 DIRECTION: SE
 PHOTOGRAPHER: C. KREINDLER
 CAMERA: OLYMPUS INFINITY 35 MM
 SUBJECT: LOCATION OF SOIL SAMPLE S1



PHOTO NO: 22
 SITE: LYLE'S TRUCKING
 DATE/TIME: 01-12-90/PM
 DIRECTION: SW
 PHOTOGRAPHER: C. KREINDLER
 CAMERA: OLYMPUS INFINITY 1 MM
 SUBJECT: VIEW OF DRUM WITH MATERIAL LEAKING OUT



PHOTO NO: 23
 SITE: LYLE'S TRUCKING
 DATE/TIME: 01-12-90/PM
 DIRECTION: NORTH
 PHOTOGRAPHER: C. KREINDLER
 CAMERA: OLYMPUS INFINITY 35 MM
 SUBJECT: GROUP OF BARRELS ON-SITE



PHOTO NO: 24
 SITE: LYLE'S TRUCKING
 DATE/TIME: 01-12-90/PM
 DIRECTION: NE
 PHOTOGRAPHER: C. KREINDLER (Y)
 CAMERA: OLYMPUS INFINITY 35 MM
 SUBJECT: TAT COLLECTING DRUM SAMPLE D1



PHOTO NO: 25
 SITE: LYLE'S TRUCKING
 DATE/TIME: 01-12-90/PM
 DIRECTION: SE
 PHOTOGRAPHER: C. KREINDLER (Y)
 CAMERA: OLYMPUS INFINITY 35 MM
 SUBJECT: TAT COLLECTING DRUM SAMPLE D2



PHOTO NO: 26
 SITE: LYLE'S TRUCKING
 DATE/TIME: 01-12-90/PM
 DIRECTION: SOUTH
 PHOTOGRAPHER: C. KREINDLER (CY)
 CAMERA: OLYMPUS INFINITY 35 MM
 SUBJECT: TAT COLLECTING DRUM SAMPLE NO



PHOTO NO: 27
 SITE: LYLE'S TRUCKING
 DATE/TIME: 01-12-90/PM
 DIRECTION: EAST
 PHOTOGRAPHER: C. KREINDLER (CY)
 CAMERA: OLYMPUS INFINITY 35 MM
 SUBJECT: VIEW OF FUEL TANKS CONTAINING LIQUID



PHOTO NO: 28
 SITE: LYLE'S TRUCKING
 DATE/TIME: 01-12-90/PM
 DIRECTION: EAST
 PHOTOGRAPHER: C. KREINDLER (C)
 CAMERA: OLYMPUS INFINITY 35 MM
 SUBJECT: TAT COLLECTING DRUM SAMPLE D4

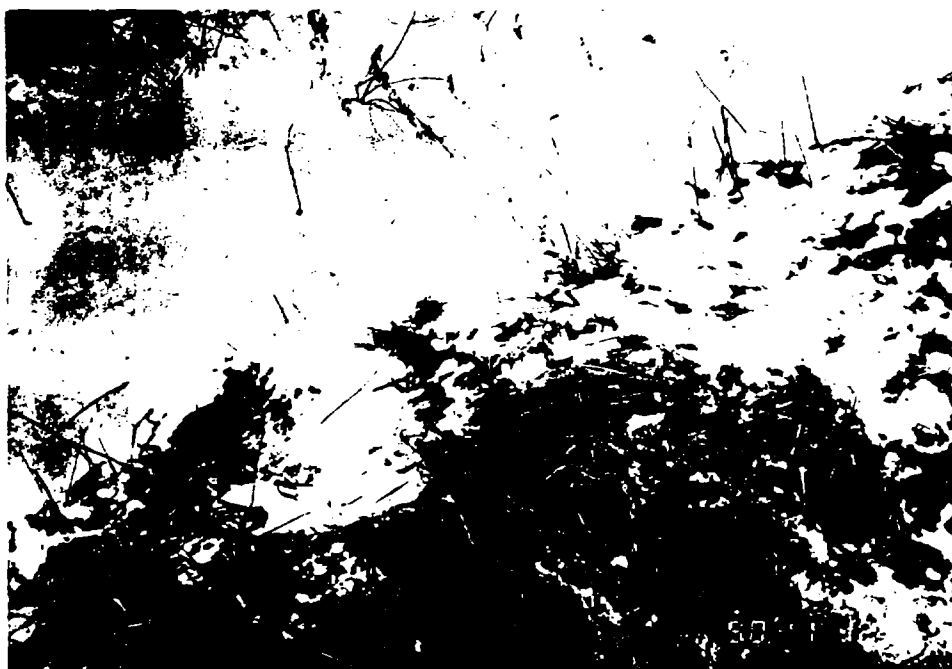


PHOTO NO: 29
 SITE: LYLE'S TRUCKING
 DATE/TIME: 01-12-90/PM
 DIRECTION: WEST
 PHOTOGRAPHER: C. KREINDLER (C)
 CAMERA: OLYMPUS INFINITY 35 MM
 SUBJECT: LOCATION OF BACKGROUND SOIL SAMPLE